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MERCURY AS AN ANTIPHLOGISTIC AND CHOLAGOGUE.

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In medicine, as in other sciences, ours is an age of progress, discovery and theory. In comparing the latest works on physiology, pathology, and practice of physic, with those of the olden time, we are struck with the vast change that has taken place. The received opinions that have stood the test of scrutiny for centuries are now being overhauled and subjected to the ordeal of scientific research and experiment, and many theories that have been acknowledged as facts, and have by common consent passed into laws, are now found to be in direct opposition to fact, as tested by actual experiment.

Such is the case in regard to the action of mercury. We are taught by the "United States Pharmacopœia" "that there is no fact better established in medicine than that of the influence of mercurial preparations over the hepatic system." Yet if we credit the experiments of Dr. BENNETT and others, we are forced to believe the contrary. We have been taught that mercurials were antiphlogistic in their action. But to use the words of a recent writer, "theory, as well as experience, says it is contrary to the teachings, both of pathology and experience, to believe that it can in any way prevent or cure inflammation."

Such is the difference of opinion as regards the action of mercury. Whilst some of these experiments are founded on fact, and must be accepted as truths, other alleged discoveries and theories are often blinded by false rea-

sonings, and by an over-anxiety to produce something new, and it behooves us as members of an honored and learned profession to watch with jealous care any innovation upon the precepts and experience of the "Fathers" of medicine, and weigh well and test as far as possible, by actual experiment, the various theories, before accepting them as truths. But when thus tested, and found to be even in opposition to our preconceived opinions, it becomes us, as searchers after truth, to yield to science and progress, although by so doing, we relinquish our life-long theories, that have almost become a part and parcel of ourselves.

Mercury appears to have been first used internally by Paracelsus, about the year 1520, although Theoduc, the Friar, in the twelfth century, describes the salivation that mercurial friction will produce. Calomel is first mentioned, although obscurely, by Oswald Crollins, in 1608; in the same year Bequin described it most fully and clearly. After this time chemistry took possession of the schools, and gradually the other preparations were discovered and introduced; and at this period there is no medicine in the pharmacopœia that enters into so many different recipes as that of mercury in its different combinations. In looking over "Griffith's Formulæ," we find no less than 192 different recipes with this mineral entering into and forming the active part of the prescription. We learn by this that it is a drug of powerful import in medicine, nor is there any remedy that has been more extolled and more abused than mercury.

Until the year 1852 mercury was acknowledged by the profession to have a direct action on the secretion of the liver, promoting the secretion of bile, relieving the portal circulation, and, in fact, correcting any vice of the liver. It is likewise conceded by authors and

teachers to possess antiphlogistic and alterative powers.

The United States Dispensatory says "there is no fact better established in medicine than that of the influence of mercurial preparations over the hepatic system, and whether the liver be torpid and obstructed as in jaundice, or pouring out a redundancy of morbid bile, as in melæna, its judicious use seems equally efficacious in unloading the viscus and restoring its secretions to a healthy state." In chronic inflammation of the mucous and serous membranes, the alterative effects of mercury are sometimes attended with much benefit. In many cases of effusions mercury often proves useful by promoting absorption of the fluid as well as removing the chronic inflammation on which the effusion depends. Hence, the metal is given with advantage in chronic forms of meningitis, bronchitis, pleuritis, hydrocephalus, hydrothorax, ascites and general dropsy. It may also be advantageously resorted to in certain forms of remittent fever. It acts in such cases by increasing the secretions, and stimulating the exhalant capillaries, and, perhaps, by producing a new impression incompatible with the disease.

Prof. WATSON says: "Next to blood-letting, mercury is far superior to purgation in serous inflammation, and is really a powerful agent in controlling inflammation, especially phlegmonous, adhesive inflammation, such as glues parts together and spoils the texture of organs; and the great remedial property of mercury is that of stopping, controlling, or altogether preventing, the effusion of coagulable lymph, or bridling adhesive inflammation, and is also of great service in many cases of chronic inflammation when textures have been slowly altered by a gradual deposition of lymph; and mercury, given with the view of promoting absorption, must be slowly and gradually introduced into the system, and its specific influence, when at length it is felt, must be sustained for a considerable length of time." He says "you must not expect good, but, on the contrary, in scrofulous inflammation, and when the scrofulous diathesis is well marked, you should be careful in giving mercury at any time."

In WILLIAMS' principles of Medicine he says: "Mercury increases the secretions of the liver, and this is an important fact, however difficult it is to explain." And he also says: "Another great remedy in inflammation is

mercury alone or combined with opium." Dr. HAMILTON, of Lynn Regis, first employed mercury with opium in inflammation. He says "we find mercury chiefly useful when we find the blood presenting the 'buffy coat,' and there is a tendency to copious fibrinous effusions, as in inflammation of the serous membranes in croup." "It is more useful in the more active inflammation, bringing away dark green matter, which, according to Dr. BIRD, resembles the coloring matter of the blood rather than the bile in its composition, and this operation of calomel does in truth resemble that of blood-letting, being more actively antiphlogistic in large than small doses."

Prof. GEO. B. WOOD says: "For nearly 30 years I have used this remedy (calomel) in the irritative fever of children; have never seen it do harm, and have frequently found it to put an immediate end to the disease." "How it operates is a matter of conjecture; perhaps it may do good by its powerful influence over the liver, *promoting a free secretion of bile*, and unloading the portal circulation. Perhaps it may have a peculiar alterative effect. But the fact rests not upon theory, but upon experience."

We deem the foregoing extracts of the opinions of our most celebrated authors and teachers of medicine, and I may say also the universally accepted opinion of the profession, sufficient to establish the fact that it has been the received opinion that mercurials have a direct action upon the liver in increasing its secretion and flow of bile into the bowel; and, secondly, that its action in certain doses is antiphlogistic and alterative.

We now present the views and experiments of physicians of more recent date, which are in direct opposition to the foregoing opinions.

And first we will notice it as an antiphlogistic. But before doing so it will be more intelligible to view briefly the difference of opinion between the ancient and modern pathology in inflammation; and upon which depends, to a certain extent, the basis of the argument, "that mercurials are not antiphlogistic in their action." Hunter, and his disciples, held and taught that the inflammatory condition was an increased vital action—modern pathologists teach us that it is a *diminished vital force* or retrograde metamorphosis, and that the rapid pulse and active delirium, like the increase of the animal heat,

are signs of a *deficient balance-power*, and in an increase of temperature we see but increased waste.

How different to us of the present day the value of the symptoms which were formerly considered indicative of strength! The theory heretofore accepted, that the presence of fibrin in the blood in undue quantity was looked upon "as an element of blood in an upward stage of development, and tending at all times to add vigor to the morbid process of inflammation, and contributing, so long as its presence was manifest in an undue degree, to the detriment of the body." But of late years the presence of fibrin in the blood, either in health or disease, is considered as an element indicative of *disintegration and decay*; and when thus found in the blood, is not to be regarded as an element of inflammation, but as an element of absorption derived from the diseased parts, and is in proportion and in quantity to the supply of lymphatic vessels in the affected tissues.

Thus in inflammation of the brain the phlogistic crisis is absent. This fact is referred by VIRCHOW to "the absence, or almost entire absence of lymphatics in that organ. On the other hand, the blood is loaded with fibrine in inflammation of the bowels or pleura, which are truthfully supplied with lymphatics." As a further proof that the fibrine of the blood is rather an effete material than an element ripe for nutrition, it is only necessary to recur to the fact that violent and fatiguing exertion rather increases than diminishes it. Bleeding, no matter how often repeated, never lessens, but generally augments it. Dr. FRANZ SIMON ascertained, by starving a horse four days, that the fibrine in his blood rose from 5 to 9 parts in 1,000. The buffy coat is not equally marked in equal degree of inflammation of all the organs; nor does its presence by any means indicate what is termed a sthenic condition of the system, it being present after repeated and exhausted bleedings, in chlorosis, in mercurial salivation, and other equally adynamic conditions. The increased heat of the body in inflammation is from a "hyperoxidation of the living elements of the body," and is sustained in a great measure, either directly or indirectly, at the expense of the tissues—a burning up of the tissues of the body, and generating heat by the destructive change or combustion.

But no matter what the grade of inflamma-

tion, or where its seat, it invariably is the occasion of certain morbid products either in or around the tissues affected. This exudation or inflammatory lymph is divided by Paget into two varieties, the "fibrinous," and the "corpuscular;" the former "apt for development," whilst the latter is prone to disintegration. "But although the fibrinous variety is possessed of far more aptness for organization than the corpuscular, it is nevertheless far below normal tissue in point of vitality." The nearer the blood approximates to the normal standard of health the more apt is the inflammatory lymph to be of the fibrinous variety; the greater its vitality and power of development, and the less prone to take on that suppurative condition toward which the corpuscular variety is ever tending. "It may be laid down as a general rule, therefore, that whatever weakens the tone and vigor of the system tends also to impair the vitality of inflammatory products, and to change what would, under favorable circumstances, be plastic into aplastic, or suppurative lymph."

Now the non-mercurialists contend that mercury will bring about that condition of the blood most unsuited to repair damage, or in other words, convert fibrinous lymph into the "corpuscular" or suppurative variety, by lowering its vitalizing properties; and as an evidence of its impoverishing effect upon the blood, and wasting of the body, we take the analysis of the blood of persons under the mercurial influence, by Dr. Wright, which reveals the fact that it has lost one-third of its fibrine, one-seventh of its albumen, one-sixth or more of its globules, whilst at the same time it is loaded with an effete material, and is more prone to putrefaction. From experiments made on six dogs with mercury, as reported by Dr. J. HUGHES BENNETT, August 7, 1868, we find dog No. 1 weighing 30 pounds, losing 8½ pounds in 18 days, from 12 1-5 grains of corrosive sublimate, and dying from its effects; dog No. 2, weight 18½ pounds, lost 4 pounds in 8 days from 4½ grains, and died; dog No. 3, weight 24 pounds, lost 3½ pounds in 9 days from 7 1-5 grains, and died; No. 4 died second day, lost ½ pound in 36 hours from 3 1-5 grains; No. 5 died in 15 days, having lost 7½ pounds in 13 days, weight 38½ pounds; 19½ grains given; No. 6 died in 11 days; lost 7 pounds from 19 1-10 grains. Each greatly emaciated, great weakness, tremor, staggers, liquid feces, mixed with blood, and nasal discharges before death.

My friend Dr. COLES, of Parkesburg, has written a very excellent article on "The use of Mercurials in Inflammation," and published in the *St. Louis Medical and Surgical Journal*, May 10th, 1869, in which he says: "It is contrary to the teachings of both pathology and experience to believe that mercury can in any way prevent or cure inflammation;" and again says: "Given at the height of inflammatory process mercury never shortens, but often, in striking a deadly blow at vitality itself, actually does harm; but it may prove hurtful in another way, by thwarting the wise and conservative provisions of nature."

He says: "All observations in the animal kingdom, as well as all analogies in the vegetable world, teach us that there is an intrinsic vital tendency to repair damage wrought in their tissues by disease or injury, so long as life lasts. If a traumatic injury is received, the injured part at once becomes the seat of an irritation running rapidly into inflammation, with effusion of lymph, which lymph, if it be of a healthy character, is made subservient to the work of reparation. If no disturbing element interferes, the local effusion takes on that vital action most needed to repair the particular part injured. If a bone is broken, the effused lymph undergoes ossification. If a muscle or a tendon is severed, the product of inflammation does not ossify, as in the former case, but assimilates itself to the parts injured."

"Inflammation, wherever it arises," to use the words of CHAMBERS, "is essentially a work of destruction, but opposed to this is the element of construction, whereby the process of disintegration is not only checked, but repaired. The scale of life or death turns with the preponderance of one or the other of these forces, and with the immortal precept of Cullen ever in mind, we should strive to 'obviate the tendency to death.' Now, what is the tendency to death in inflammation, and upon what do we base our prognosis in such cases? We answer by saying that inflammations either recover after running through a certain course, or else there comes a time when construction surrenders to destruction, and vitality ceases. Asthenia, then, is the general cause of death in inflammation."

"It is precisely here that the question arises: Are we justified in the present state of our knowledge of the inflammatory process, in assuming that that state of the blood, in-

duced by mercury, is a desirable condition upon which to found a favorable prognosis? We believe not, and are borne out in this conclusion by every aspect in which the case can be viewed.

"It will readily be conceded that the result of inflammation is considered favorable or unfavorable in proportion to the vigor of the patient. In other words, we know pneumonia, like all other inflammations, runs through progressive stages, and if the patient can but weather the storm he will sooner or later arrive at a port of safety. But the advocates of mercury claim that its timely administration will actually cut short the disease, starving out the morbid process of a destruction of the inflammatory element of the blood. Now both of these assumptions are founded on an exploded pathology, and are inconsistent with observations and experience. Modern pathologists have demonstrated that hypermosis, which mercurialists contend is the fuel that adds fury to this morbid flame, is the result and not the cause of inflammation; it represents the ashes of a retrograde metamorphosis in the tissues. To defibrinate the blood with mercury, therefore, is no more potent in stopping inflammation than the removal of the cinders is effectual in extinguishing the combustion within the stove. But the effect of mercury in these cases is not only negative, it is positively injurious; indeed, in many instances it is the worst thing that can be given, for, as Chambers remarks, "mercury distances all the contents of our pharmacopœia in the power of hastening destructive metamorphosis. By destroying the fibrin and globules of the blood it loads it with an effete poisonous material, lowers its vitalizing properties, and thus takes away the last bulwark which defends the tissues against disintegration."

"Not only is mercury injurious in thus striking a deadly blow at vitality itself, but it may prove hurtful in another way by thwarting the wise and conservative provisions of nature." Pathology teaches us that inflammatory effusions are of two kinds, *fibrinous* and *corpuscular*, and that the tissues involved exercise a large determining influence over the character of the effused products. Like the lymph around a broken bone, the effusions of inflammation under auspicious circumstances are always of a character favorable to a speedy and safe recovery. That the products of inflammation in shut sacs, such as the pleura, peritoneum,

pericardium, and the like, is fibrinous, and thus favorable to rapid absorption or the adhesion of opposing surfaces, seems to be in accordance with a wise law; this law only holds good, however, so long as a certain state of vitality is maintained. In proportion as the destructive metamorphosis gains upon the power of construction in the system do we find the effusion or serous membranes become less and less plastic with each successive layer; what was in the beginning fibrinous lymph has become corpuscular or suppurative, a condition most unfavorable to recovery.

"Now it is in inflammation of serous membranes, such as we have mentioned, that the advocates of mercury contend that it is particularly advantageous, and for the reason that the exudation in these cases is typical of what they call a *sthenic* condition of the system. Thus it is that they would seize hold of one of nature's wisest safeguards as a pretext for reducing the vital forces to the very standard which, in these same affections, constitutes the chiefest danger to the weakly, shattered subject of previous ill health." "Given at the height of inflammatory process, then, we contend that mercury never shortens, but often aggravates and prolongs it by interfering with nature's cure, which is most active and efficient when the system is strong and vigorous, and the blood rich in vitality."

"From the argument here adduced we would naturally suppose that those who do not believe in the antiphlogistic power of mercury would oppose its exhibition in pneumonia, pleurisy, pericarditis, rheumatism, etc.; such is the fact. Dr. FULLER says "it exerts no perceptible influence over rheumatic poison, nor does it prevent the access of cardiac inflammation, for pericarditis and endocarditis supervene as readily whilst the patient is under the influence of mercury as when that drug has not been administered." Dr. MACLEOD says: "Rheumatism has continued, although the mouth was effected, while it has readily subsided on continuing the narcotic and purgatives without the mercurial."

Dr. Chambers does not give mercury in acute pericarditis, and although his reason for not doing so seems to be founded on a single case, yet his authority gives weight to his views. He says: "Ten years since, a robust and excitable girl of sixteen had rheumatic fever; from her constitution, I feared she was likely to have her heart affected, for young

persons of a nervous temperament are much the most liable. I had an impression then that mercury would prevent the occurrence of inflammation in serous sacs. I put her under the influence of mercury; the pericarditis came on, and the patient died in the height of it. This result made a deep impression on my memory; her fair young face always rises before me when the idea is mooted of preventing pericarditis with mercury, and I shrink from using it."

Dr. JNO. TAYLOR gives an analysis of forty cases of pericarditis: "Ptyalism produced no abatement in twelve cases; in one case pericarditis and pneumonia became aggravated after ptyalism; in three cases endocarditis supervened after ptyalism; pericarditis attacked the patient after ptyalism in six cases; in one case, ptyalism could not be induced, yet the pericarditis went on favorably; in two cases, ptyalism was followed by extensive pleurisy; in one by erysipelas and inflammation of the larynx; in two cases, rheumatism continued long after ptyalism was produced; in the remaining four cases ptyalism was followed by recovery; but in one of them the patient was mending when the mercury was given."

PROF. FLINT says (in *Cerebro-spinal Meningitis*, 1866), "Mercury, tartar emetic, active purgatives, extensive vesication to neck and back, etc., are among the measures which have been more or less largely employed, but it is difficult to determine from the literature of the subject, their agency respectfully, for good or harm."

In the second stage of pneumonia he says: "Can we give remedies to excite absorption and thus shorten the duration of the second stage of pneumonia? With our present knowledge of the course of the disease in cases in which no active measures of treatment are employed, and after a large experience of the value of tartar emetic as a sorbafacient, its utility is, to say the least, doubtful."

"The same remarks are applicable to mercury, given with a view to effect the system. I have now for many years ceased to employ these remedies for the purpose under consideration, and have seen no reason to be dissatisfied for discontinuing their use." In the second stage of liquid effusion of pleuritis, he says: "The remedies supposed to act as sorbafacients are mercury and iodine. Mercury I have long ceased to employ for this end of doubtful efficacy;

the annoyance and other evils incident to mercurialization render it objectionable."

Of 1,189 cases of pneumonia treated in the hospitals of Edinburgh, Paris, Vienna and Milan on the antiplogistic plan, more or less heroic in its details, 270 deaths occurred, or more than 1 in 4½. Dieth, in Vienna, treated 380 cases as follows: 68 by blood letting; mortality, 1 in 5; 84 by tartar emetic; mortality, 1 in 5.22; on the other hand, 175 were treated by diet alone, with a mortality of 1 in 13½. Dr. BENNETT, to whom we are indebted for the revolution in the therapeutics of pneumonia, reports 129 cases on a strictly restorative plan, with a mortality of 1 in 34½. Dr. A. T. H. WATERS, who is no friend of the antiplogistic use of mercury, has been lucky enough to cure 43 out of 44 patients. Dr. COLES says: "Out of 14 cases treated in Bellevue Hospital, one death occurred, and the common treatment in that hospital consisted in dry caps, oil silk jacket, occasional blisters, nutritious diet, together with stimulants when required. Of six cases treated by him in Parkesburg, one case was salivated and died, the others were treated by supportive plan, without mercury, and recovered. The one salivated was pneumonia supervening on typhoid fever, and was a bad test for salivation, and indeed, we can readily conceive that it would do harm by impoverishing an already depraved condition of the blood."

Dr. GULL, of London, in 1868, in "Clinical Observations," says: "We know that we cannot directly control the morbid processes in pneumonia, pleurisy, or pericarditis; we know further that the means formerly considered essential to the cure of these diseases, tested by better clinical observations, were either useless or pernicious; that instead of favoring the plastic processes in inflammation, whereby the normal decline of the disease was promoted, the effused material was often spoilt by the treatment employed, and remained in the affected parts, either as a foreign body or in different degrees approaching thereto, and this must always have been so had we continued to regard these effusions as simply foreign products; but as soon as we perceived their physiological relations, and that they had a course of life like the tissues from which they sprung, they took a different aspect, and it became our duty, often without much interference, to stand by and watch this course to the end." He evidently refers to the admin-

istration of mercury and to the heroic and supporting plan of treatment.

Dr. TANNER, in his practice of medicine, says: "With regard to the use of mercury in inflammation, there appears to be every reason to believe that its utility in controlling inflammation, or in promoting absorption of the effused products, has been very much overrated, and, indeed, it seems highly probable that inflammatory diseases will progress more favorably without the use of this medicine than with it." We have now set the different views entertained relative to the action of mercurials in disease before you.

We now call your attention to researches to determine the influence exercised by mercury on the biliary secretion. These researches were made upon the dog, from the fact that his habits and food and bile resemble more those of the human species than any other animal.

These experiments were conducted in the following manner: A biliary fistula was formed from the bile duct to the outside of the body, and allowed to heal perfectly, and a tube inserted, so as to catch all the bile that the liver secreted. The actual amount of bile was accurately noted from day to day until the amount was ascertained. Mercurials were then given and their effects noted also. Of these experiments Prof. Nasse, in 1852, was the first who instituted the experiment to determine the influence of mercury on the secretion of bile. He thought that it increased the absolute quantity of bile, but diminished its solid constituents, which is rather vague. Kolliker and Miller's experiments show that after the first dose of calomel a gradual diminution of bile took place. Dr. Mosler proposed to himself the question, What substances introduced into the blood appear in the bile? In some of the experiments a solution of the substance to be tried was injected into the blood. In others the medicine was given by the mouth, and the bile afterwards tested to ascertain if it contained any trace of the substance administered. With regard to mercury, he tells us no trace of it could be found in the bile after being tested with great accuracy, and no striking increase of the biliary secretion was remarked. The same experiment was tried on three dogs with healed biliary fistula, at different times, and in various doses, and he concludes from these experiments that "when mercury is administered in the form of

calomel, either in large or small doses, it does not pass so rapidly into the bile, nor produce the marked increase of biliary secretion that medical men imagine." Dr. Scott experimented on four dogs with biliary fistulae, and he concludes that all the trials gave but one result, viz.: a diminution in the amount of bile, and bile-solids, secreted after the administration of large doses of calomel. The next experiments were made by a committee under the direction of Prof. Hughes Bennett, to investigate the "action of mercury on animals," which they did during a period of two years. They completed the operation for biliary fistula on thirty-three dogs, but from various causes satisfactory observations could only be arrived at in eight of these. They kept careful minutes and accurate tables in every case.

They fed the dog six days on certain diet, and carefully noted the amount of bile secreted. Then took the same dog and gave him the same diet, and all other circumstances being equal, they administered blue pill in 5 grain doses for six days. The same care was taken in administering calomel and corrosive sublimate, and we give the language of their report:

"As to anything that enables us to increase the amount of bile, beyond giving food and supporting health, we are unacquainted with it. Perhaps there is no opinion in medicine more widely spread, and certainly there is none more universally acted upon than that mercury does so; in fact, that it acts as a cholagogue. Yet not only have the few experimenters who have directed their attention to this subject invariably observed that mercury rather diminishes than increases the secretion of bile, but the general results of the trials of your committee fully confirm this conclusion. We have seen that in whatever form or dose it may be given, such as continuous moderate doses of blue pill, minute and frequently repeated doses of calomel, or large doses, varying from 10 to 15 grains, it utterly fails to stimulate the liver. Its constitutional action has been excited slowly and rapidly, by means of corrosive sublimate, with a like result. In poisonous doses it produces a marked diminution in the flow of bile. In all these varied attempts, carefully separated under every varying circumstance that could be thought of, no evidence was obtained that mercury acted specially upon the liver at all. The exact measurement of

all the bile secreted by the eight dogs, first without and then with mercury, tends rather to show that so far from increasing the flow of bile, it causes its diminution, through its general depressing action, on the entire organism. This fact seems now to be so certain and thoroughly established that the committee consider it unnecessary to make any further researches on the subject." This then is the opinion of these gentlemen, and they are of the highest authority.

But some will say that dogs are not men, and mercurials will likely effect each differently; but when we take the fact that dogs are readily salivated, and present exactly the same symptoms as are shown in the human subject, and further, that dogs like men can be fed on flesh, and on a vegetable or a mixed diet, and that the qualitative composition of canine is identical with human bile, leave little doubt that the influence of mercury in both is precisely the same.

If the refutation of a wide-spread error be as important as a new truth, the practical advantage of demonstrating that mercury is not a cholagogue, cannot be too highly estimated. Although in recent times the administration of mercurials for hepatic diseases has greatly diminished, their employment is still very general. Recent cases demonstrate that long continued salivation and great loss of health have been produced in the attempt to remove old abscesses or other chronic diseases of the organs. But, some will say, we know by administering calomel, we bring away larger quantities of bile, and if it does not act upon the liver, why does it promote its discharge? I believe the solution to this apparently incontrovertible argument is this:

From the experiments of Bidder and Schmitt, published in 1852, on the dog, cat, sheep and rabbit, we are led to believe a much larger quantity of bile is secreted in the human subject than is generally supposed. If we apply to the human subject the average results obtained from the cat and dog, we find that in the adult man, weighing 140 pounds, the daily quantity of bile will be certainly not less than 2½ pounds. Now, as this large amount is thrown out daily into the bowel, and not passed off, we are forced to conclude that it is re-absorbed, under favorable circumstances, and this has been tested by experiment on the dog, and the results obtained show that the bile, which is abundant in the

duodenum and upper part of the small intestine, diminishes in quantity from above downward, and is not to be found in the large intestine. If we disturb this physiological process by any substance that will hurry the bile through the bowel, and cause its exit per anum before it can be absorbed, then we will have a larger biliary evacuation, and this is the case when we give any medicine that acts upon the upper portion of the bowel; and as we believe mercurials have a specific action upon the stomach and upper bowels, we can readily see why a dose of calomel will bring away biliary matter; not from its action upon the liver, but its action upon the stomach, duodenum and upper bowels. The same holds good in regard to podophyllin and other substances that have a tendency to the upper bowel.

The inquiry naturally arises, what, then, is the action of *mercury* upon the system? Unfortunately for us it is easier to ask the question than to answer it. We do not wish to be understood that we would exclude it from the list of remedies; but, on the contrary, believe it to be of great service in certain cases. It seems to be a medicine of great eliminative power, always acting in throwing off the secretions, and when pushed to the point of salivation produces the elimination of the tissues, as is shown by the alteration of the blood in pytalism, taking from it one-third of its fibrine, one-seventh of its albumen, one-sixth of its globules, and loading it with effete matter, also in the rapid emaciation following its use, a dog weighing 30½ pounds emaciating 7½ pounds in 18 days, under the use of 12 1-5 grains of corrosive sublimate, and killing him in that time.

We would say, then, that it is a good purge in the commencement of fevers; that by its impression upon the stomach and bowels it causes a new action by throwing off the effete matter, and we can imagine that great good often arises from hurrying the bile through the bowels and giving the liver a rest, and causing it again to secrete a new supply of bile from the blood. In this way we can conceive that it would be of great service in biliary affections, by indirectly acting upon the liver and its functions, by hurrying off its secretion before it has time to reabsorb the bile thrown out in the bowel. Hence in jaundice, if we can compel the liver to secrete from the blood the superabundant bile instead of that thrown

out for digestion, we can readily see how we can cure it; and by giving the liver a rest, by giving it less to do for a time, we can conceive of its utility in inflammation and engorgement of the liver by the same eliminating process. From its eliminating power we would naturally infer that it would be of service in carrying off the products of inflammatory action. Therefore we find it of service, combined with other substances, in dropsies, exudations, effusions; and in syphilis we cannot account for its remedial powers over that disease only by its eliminative power; and the same applies to the action of iodide-potassium in disease. But even in these cases care must be used that we do not impoverish the blood and do more harm than good. From its action upon the various constituents of the blood, in reducing them below the health standard, we would give it, if at all, with great caution, in any of those diseases that show an impoverished condition of the blood, or where there is a rapid disintegration of tissue or putrescence; as in typhoid and typhus fever, small pox, scarlatina, cholera, phthisis, anemia, etc.

We have endeavored to set fairly before you the different views in relation to the action of mercury as an antiphlogistic and chologogue, and from the investigation and the light thrown upon the subject, by the aid of a better physiology and pathology, we are led to the conclusion that mercurials have been too freely used, and often to the detriment of the patient, and, doubtless, we all have been in the habit of giving calomel when "bread-pills" would have done better; and if this be so, it is our duty to yield to progressive science and research, and ever be open to reason and facts, and aid in the advancement of science by observation and experiment, and willingly leave the beaten paths of routine, and adopt that treatment which yields the best results. It is hoped that the views and experience of others will be freely given on this important subject. If our pharmacopœia and other standard works are teaching errors, it is time they should be corrected. If truths, we should guard against any innovations.

OBSTETRICAL REMINISCENCES.

By F. K. BAILEY, M. D.,

Of Knoxville, Tenn.

III. Ergot.

In calling to mind the observations of past years in obstetrical practice, prominent among

the different agencies employed, is *secale cornutum*. For many years it has been in use as an aid in parturition, and, like other medicines, variously estimated as to its virtues.

I began to use it on first commencing practice, and sometimes found it to act like a charm. Again, it seemed to be entirely inert, or to have a positively injurious effect. It soon began to be a question when to use it, and when to leave it on the shelf.

The first case in which faith in the drug, or in my judgment, was shaken, occurred in the summer of 1840. The lady was apparently of good constitution, and labor progressed favorably, as I thought, for some hours. Gradually, however, the pains began to be less effective and frequent.

In fact, they nearly ceased, and I gave some ergot. The os was dilated and dilatable, and labor well nigh through the second stage. According to the best authority in those days (DEWEES) it was clearly indicated. It was given in medicinal doses at short intervals, and soon began to produce an effect. Pain was not only increased in severity, but constant and unremitting. For an hour or two there was no cessation of anguish. It was both expulsive and excruciating. The abdominal tumor seemed more like a ball of iron than an organized substance. At length the child was born, but it was both livid and lifeless.

It was a great relief to all concerned to have such terrible distress terminated, and I gladly waited the "regulation" half hour before thinking of the removal of the placenta. It seemed certain that an organ capable of removing the greater must very easily expel the lesser. In due time I proceeded in the attempt to remove the after-birth, but soon found the uterus was grasping it very firmly. The os was unyielding. Being satisfied that it was not adherent, and consequently less danger to be apprehended from hemorrhage, I left at 10 o'clock P. M. for home. It being not far distant, I could be called if occasion should occur.

Next morning I called and found everything as left the night before. There had been no hemorrhage and no pain. All efforts at removal were fruitless; I accordingly waited quietly the turning of events, and about 3 P. M. there was a severe expulsive pain, which brought away the placenta with considerable force. It was rolled into a globular mass, and did not readily assume its flattened

shape. So long and firmly had it been held that it seemed like a ball of flesh. Such were the effects in this case, that I naturally became cautious in using such a potent agent. Similar was the experience of some of my contemporaries, who had given ergot only to wish it had been withheld.

A period of ten years then elapsed in which I do not remember to have misapplied its use. In 1849 or 1850 I began to keep a table in which to note facts in obstetrical practice, and continued till seventy-three cases had been recorded. Of this number, eleven were considered as indicating the use of ergot. The first was an abortion at three and a-half months, attended with hemorrhage, which had occurred at intervals during the whole period. Resulted favorably.

The second was attended with short and spasmodic pains, in which sul. ether and morphine were given with the effect to suspend uterine effort. Ergot was given, with happy result. In the next, a case of placenta prævia, with swoon and fatal flooding, it was given without the least effect. In another, the drug acted favorably, but the child vomited almost incessantly for twenty-four hours, with no secretion of urine. In six of the number, labor was rapid and regular till the last stage, when there was inertia. Ergot acted well and very satisfactorily. Children all alive. In another there was partial placenta prævia, attended with fearful hemorrhage. Opium in full doses, with ergot, controlled the flooding and soon finished the labor. The child was dead, but the mother recovered, though feeble for some time.

The *modus operandi* of ergot has been a discussion from the time of its first use.

It is not proposed to discuss this question, but late observers have decided that it acts upon the spinal column. The fundus of the womb is supplied with nerves from the spine, and it seems that ergot acts decidedly upon the muscles concerned in expulsion. The nerves of the neck are said to be derived more from the sympathetic system, while some maintain that the entire organ receives its supply from both the spinal and sympathetic systems. Be that as it may, all must have observed that the state of the os in labor is dependent greatly upon the condition of the stomach. How often do we find dilatation commence immediately upon the occurrence of vomiting.

There are two desirable results from vomiting, one, the evacuation of offending substances, and the other, an equalization of the circulation. How often do we find labor progress rapidly after the patient ejects from her stomach the last meal in an undigested state.

How often too, did we, who flourished before the fashion of bleeding became a thing of the past, observe that our suffering patients would vomit freely after venesection, especially if fainting supervened.

In summing up the result of personal observation in the action of ergot in labor, it seems unadvisable to administer it unless the alimentary canal is in a normal condition. In fact, we have no reason to expect an easy and favorable labor, unless all the functions are normal.

If inertia occurs, and ergot is given with a view to obviate it, there will be a want of coördination in the action of the fundus and neck unless all offending matters are evacuated. At the termination of utero-gestation, labor commences and progresses as a physiological process, unless some cause of an excito-motory or mechanical nature exists.

To be able to determine the best course to pursue, when pathological conditions in their multitudinous forms become obvious, should be the object and aim of all.

With the embarrassment and perplexity incident to obstetrical practice all men are familiar, and perhaps all will unite in saying that the question, when to use and when not to use ergot, is often one difficult to decide. I have many times been in attendance in the lying-in room, when labor becoming lingering, I would have given ergot, but found I had none, and it was too far to send for it. All things resulted favorably upon a quiet patient waiting for the physiological process, or *nature*, as we commonly say, to complete the process.

Many, no doubt, in cases when labor is slow, having already spent time which should have been devoted to visiting other patients, become impatient, and give ergot with the hope of being sooner released.

Although not disposed to discard a remedy long in use, and of acknowledged virtues, still it may not be considered as a digression to remark to the younger members of the profession, that a well directed inquiry into the history of the patient for a few days previous, and ascertaining the condition of the various functions, and preventing any departure from

a healthy standard, will obviate the necessity of using such an active as well as uncertain agent. The friends and attendants will often clamor for something "driving," in order to shorten labor, and I will not deny but that I have sometimes yielded to such an influence in my junior years. It requires more stamina than any young man can command to withstand the urgent pleadings of a suffering woman and her anxious friends. I have oftentimes in later years, while attending a case which was lingering, or apparently so, when urged to "do something to hurry matters," advised the procuring of some domestic herb which I knew would consume an hour to find, in order to sustain hope, and attract the attention of all concerned, while the head was merely advancing as rapidly as it ought to, through the firm perineum of a healthy primipara.

In hemorrhage from a threatened abortion I have always used ergot, and with favorable effects. That it would obviate the escape of blood from the uterus was shown in the case related where the placenta was retained so long. Not only had no hemorrhage occurred during those long hours, but the external surface of the placental ball was dry.

Many years ago the caution was given in the use of ergot that it would cause retention of placenta, and probably for the reason that its force is unexpended upon the expulsion of the child, and that while the muscles of the fundus are contracted, those of the os are likewise not dilated. To obviate such a result, I have for years been in the habit of giving a full dose of opium when the head begins to press upon the perineum, which, while it cannot suspend uterine effort at that stage, it will soothe distress, and, by the time labor is finished, begins to act as an anodyne.

I have acted upon the suggestion made by some writer years ago, that ergot should not be administered unless it is pretty certain that labor will be terminated within two hours. Of the propriety of its employment, I have been guided by personal observation and the written or oral opinions of others.

A Vindication.

By a note in another column it will be seen that Rev. Mr. DUNN was not responsible for the omission to credit an extract to Rev. Dr. BEADLE, referred to by a correspondent in THE REPORTER of October 1st.

HOSPITAL REPORTS.

PHILADELPHIA HOSPITAL.

Wednesday, October 5.

Surgical service of F. F. MAURY, M. D.,

One of the Surgeons to the Philadelphia Hospital—
Lecturer on Cutaneous and Venereal Diseases
in the Jefferson Medical College, etc.

(REPORTED BY RALPH M. TOWNSEND, M. D.)

Post-Mortem of Melanosis.

GENTLEMEN:—I first present to your notice, this morning, specimens from the patient who appeared twice before you in this amphitheatre. (Case reported in *THE REPORTER* of June 4 and October 1, pp. 474, 475—263. R. M. T.) It is from the dead as well as the living, that we must deduce those principles whence originate the laws and formulæ that lesson the ills of life and soften the pathway of death. It is a privilege not always in our power to make a *post-mortem* examination, and let me impress upon you the necessity of close, unwearying and vigilant attention while these specimens, rich in their pathological knowledge, lie upon the table.

You see the head has been vertically bisected, the saw in its downward course just grazing the lower and triangular cartilage of the nose, laterally. Looking into the cavity of the skull we find the disease has worked its way backward through the sphenoidal sinus and the foramina of the orbit, and implicated a portion of the membrane of the brain that lies at the base of the skull. The whole orbit is one mass of disease, and no operation here, unless of itself death-producing, could have removed the cancerous mass in its entirety.

Before death the patient complained much of pain in the right hypochondriac region. Looking at the liver you will know its cause. The organ is atrophied, the subject of fatty degeneration, and in the right lobe I show you three places, by section, in which the same cancerous disease as infected the orbit has made its appearance. The centre of one of these contained a grumous liquid, amounting to over a pint, which you can examine in the bottle. This man's whole system was infiltrated, so to speak, with cancer, and removal at one spot would have but stimulated the others in their growth.

Sycosis.

This man had suffered for eight weeks from a scabbed condition of both sides of his face. The disease was contracted from shaving, and is commonly known as barber's itch, or *mentagra*, on account of its supposed predilection for the chin. Dermatologists describe two varieties of this affection, viz.: *sycosiform impetigo* and *sycosis mentagra*, the latter parasitic in its origin, and said to be caused by the *microsporum mentagrophytes*. This patient labors under the first, or non-parasitic variety of this

affection. He has been immensely benefited by the application of carbolic acid ointment, consisting of a drachm of the liquid carbolic acid to seven drachms of simple cerate.

Sycosiform impetigo is a more superficial and less grave affection than *sycosis* proper, though it is troublesome and obstinate, lasting for months and often for years. The most frequent exciting cause, as in this man's case, is close shaving, or the use of a blunt razor upon an unduly sensitive cutaneous surface.

WILSON disbelieves in the existence of a parasitic or fungus growth in this affection, although GUSTAV, SIMON, GRUBBY, SQUIRE, and other dermatologists, not only believe in, but describe from actual observation, the microscopical character of the crypt or parasite existing in the root of the hairs of the beard, and around that portion which is contained within the hair follicle.

Whatever may be the origin of this affection, my observation tells me that the disease involves the hair follicles and contiguous tissues, and that this form of it is not contagious. The disease is pustular in its character, the breaking of the pustules and the discharge of their contents resulting in the formation of dark brownish crusts, which, falling off, leave tubercles. The disease commences with sensation of heat, sometimes powerful in its character, and the affected surface becomes reddened and swollen prior to the formation of the pustules. The exciting cause of the affection in true *sycosis* is contagion, and the predisposing causes are advanced age and the masculine sex. As a *dernier ressort*, epilation, or the pulling out of the hair, is practiced in the treatment of this affection, so that the diseased hair follicles may receive proper medication.

Wilson directs the hair to be pulled out only when it becomes loosened. PLUMBE regarded the hairs as the special cause of the obstinacy of this disease, and laid down rules for their avulsion. HEBRA sanctioned and recommended this treatment. Hebra applies a plaster to the diseased skin at night, and removes it in the morning, and any hairs standing in the midst of a pustule that are not removed by the plaster, he pulls with the forceps.

My advice to you on the treatment of this affection is first to trim the beard closely, and avoid exciting causes, as the razor. Pay attention to the diet and secretions, and apply locally the carbolic ointment, dilute citrine ointment, the benzoated ointment of the oxide of zinc, etc. Fowler's or Donovan's solutions may be given internally. If such treatment does not benefit the disease, pull out the hairs, or else in the course of the affection the hair follicles being destroyed, permanent baldness will result. Of course, before applying any medicated ointment to the part, you will remember the general rule I gave you, and either by poultice,

warm water dressing, or acetic acid, remove all the scabs and scales.

Enlarged Prostate Gland.

This man says he suffers from gravel, and carries with him, constantly, a catheter for the purpose of drawing off his water. On inquiry, I find that he had clap forty years ago. He is now 71 years of age, and by trade a shoemaker. I will show you at my next clinic a catheter, manufactured by Tieman, of New York, the invention of Dr. Squires, of Elmira, of that State, designed to be used in case of a difficulty, such as now presents itself. You will see, if you look at the flexible catheter that this patient carries with him, that the jamming of the stilette against its back, and the uneven temperatures to which it has been subjected, has broken the bulb half off. On slight traction on my part, it altogether separates. Watch an instrument like this, and after using it, place it where it will not be subjected to cold.

I pass a number nine sound into the urethra, and find the latter irritable, and note the escape of a little muco-pus. There is a constriction in front of the bulbous urethra, and my instrument comes to a halt at the prostatic urethra. This must be caused by enlargement of the prostate, because stricture of the prostatic urethra rarely, if ever, occurs. To aid the passage of the instrument I introduce my finger, well oiled, into the rectum, and pushing it as far up as the prostate, find it enlarged laterally and in the median line. In a man of this age who has been the subject of gonorrhœa, and who doubtless once indulged in excessive venery, you may always look for such a condition. I tilt the point of the instrument and then depress it at the handle, and thus, you see, overleap the obstruction and pass into the bladder.

A patient in this condition has generally to assume an awkward posture, with the legs widely separated, in order to pass a few drops of urine. You can always, however, draw additional urine by introducing the catheter after the patient has voided all, as he thinks, of his urine.

In introducing an instrument here, where the bladder is abnormally sensitive, you should manipulate it gently, as the fiddler his bow, working only with his hand and wrist.

I find, on exploration, that this man has an excessively large bladder, with its walls thin, and its contractility thereby lessened.

The only treatment for an old man like this is to provide him with a suitable catheter, instruct him in its use, and keep up his strength with tonics; attend to any special symptom that may arise. His condition is chronic and incurable, and your treatment in similar cases, as mine in this, is to combat pain and make the remaining journey of the

old man's life as comfortable as the science of medicine and our good sense will permit us.

Syphilis.

This woman was before you two weeks ago suffering from a deep ulceration at the outer canthus of her right eye, and ulceration and perforation of her hard and soft palates, the result of syphilitic disease. (Case reported in the No. of Sept. 24, p. 246 of the REPORTER, R. M. T.) She is now wearing a plug of lint, but will be ready for an obturator in a few days. This is the only way to fill the gap in her bone, unless like Langenbeck, we supplant periosteum.

This second woman has been in the hospital three weeks. She suffered from lichen, on her admittance, which, instead of disappearing on treatment, has run on to the desquamative stage, or scaly variety. At no time have these papules contained pus or vesicular matter. One peculiarity about this case, common to all of its class, but absent from syphilitic affections generally—it itches. On this woman's forehead a row of eruption makes a faint attempt at the corona veneris.

This woman would not be benefited by potassium at this stage of her disease. A mercurial vapor bath, combined with steam and hot air, would do her more good. I like calomel in these cases, as it nebulizes well.

Internally we will order for this woman,

R. Tinc. ferri. chlor.,	3v.
Liq. potass. arsen.,	3ij.
Hydrarg. chlor. corros.,	gr. iss-ij.

Dose—Twenty-five drops in water, three times daily.

A little litharge ointment after bath would be of benefit.

In Berlin, in a case like this, they would probably use the bi-chloride of mercury and the iodide of potassium hypodermically.

In Vienna, they would practice inunction, rubbing mercurial ointment upon the inner sides of the thighs, in the axilla and other joints where the skin is delicate, and absorption the more readily takes place.

[The following case was reported at the clinic of Sept. 17:]

Enlarged Penis.

The third case I now introduce was admitted one week since. This man was a stevedore at Richmond, Va., where he was employed in loading cotton. Those of you who are familiar with this kind of work know how hard it is, and how it strains and twists a man. A bale of cotton, while being hoisted, swung around and struck the patient in the right groin. The result was the formation of an abscess. If you look at this man, you will see some little warty excrescences where the abscess opened, and will note the immense size of his penis. This organ weighs at least two pounds, and is affected with a

species of phymosis. The left leg of the patient is also larger than the right, resulting either from venous obstruction or elephantiasis. I incline to the former belief, because there is some diminution in its size since the patient's admission, during which time he has been chiefly at rest and recumbent. The foreskin is infiltrated. If it was pure serum within, I could prick it and let it out, but this is not the case, the contents being semi-organized plasma, requiring sorbefacients in the shape of opiate and saturnine solutions, etc.

A good application here would be—

R. Ammon. hydro-chlor.,	℥j
Aquæ bullien.,	℥ij.
Pulv. Opii,	℥ss.

As a prelude to further operation, I take a piece of ordinary soft surgeon's sponge and pack it in the preputial opening back around the head of the penis, and as it becomes filled with moisture it will swell, and I hope throw the prepuce back over the glans.

Caries.

This man is a hod carrier, thirty-two years of age; a mulatto. As far as he knows, has no consumption or scrofula either himself or in his family. You see there is swelling and induration over the outer and left malleolus. Through a small sinus I introduce my probe, and it comes in contact with dead and denuded bone, as I know by the sensation imparted. Our obvious procedure here is to make a free incision so as to give room to gouge and chisel away the diseased structure.

[This Dr. Maury did. He found the ankle bone more or less carious. After gouging away all the dead bones, the edges of the sinus were pared off with the scissors, the foot loosely bandaged, and directed to be kept at proper elevation and the patient put to bed.—R. M. T.]

Fistula in Ano.

This case those of you who attended my spring clinic will remember. (Case reported in June No. MED. & SURG. REPORTER. T.) Previous to last June this patient was operated upon at another hospital for anal fistule. When he came under my charge I found him laboring under inability to retain the contents of his lower bowel, probably from division of the internal sphincter, and also, on examination, found a pouch or sac running parallel along the posterior surface of the coccyx, and communicating with the bowel. In fact, the lower part of the rectum seemed dissected out and hanging in a cavity. I was chary about operating here, for this man had a tubercular affection, and I did not wish to hasten tubercular softening by incurring additional risk from a surgical operation. Moved, however, by this man's condition, and by his pitiful solicitations, I finally pushed from below, and from within outward, a trochar through this sac, and followed its withdrawal by the introduction of a Chassaignac's drainage tube. This I to-day withdrew, it having remained since the operation, and

being, as you see, simply a rubber tube fenestrated at different points. Its effect has been to facilitate drainage and to cause the commencement of deep-seated granulation. We will have the resulting sinus injected one or more times daily, with tepid water, to promote both cleanliness and healing. The condition of this man has obviously improved since my last operation.

ALBANY MEDICAL COLLEGE.

Obstetrical Clinic of Prof. E. R. PRASLEE, Professor of Diseases of Woman.

[REPORTED BY T. D. CROTHERS, M. D.]

Diagnosis.

CASE 1. GENTLEMEN:—In this case note how little value the rational signs are alone. She is 20 years old; three years ago she had an attack of fever of some kind, from which she never fully recovered. Soon after menorrhagia came on. Then, between these periods she has metrorrhagia (or a flow of blood from the uterus). She suffers much from pain in the pelvic region. The bowels, of course, are constipated. She is anæmic (from the loss of blood, without doubt). Now, what is the diagnosis? Can any one make out an intelligent diagnosis from these symptoms? It may be a tumor in the uterus, retroflexion, or chronic congestion, etc., etc. Yet you can never determine without an examination. The treatment will be more uncertain than the diagnosis, and what we know of the case so far amounts to nothing. In this department of practice, never trust rational signs alone. Avail yourself of every means to perfect and establish a diagnosis, if you would succeed in the treatment. She has her catamenial flow at this time, consequently we cannot examine her to-day.

Retroflexion of the Uterus.

CASE 2. This girl, æt. 23, became ill last May, one week after her courses stopped; since then her courses have not returned. She has suffered much from pain over the body, and particularly in the back, and tenderness over the pelvic region, etc. Has taken opium in large doses; is anæmic. Yesterday I saw her for the first time, and discovered a well-marked tumor over the right iliac region, with enlargement of the abdomen. She had been constipated for some time, so I ordered a saline cathartic, which caused a free action of the bowels; and you see the tumor is all gone and the enlargement is not perceptible. Be careful that you do not mistake enlargement of the bowels from fecal accumulation for something more serious, and treat accordingly. I have seen several mistakes of this kind, and some fatal ones. In examination by touch I find the os of the uterus tipped forward and small. With the sound I readily determine this to be retroflexion in the second degree. If the body of the uterus was diseased this sound would cause intense pain. You see it admits of free motion, and

she does not complain, so we can eliminate disease of that organ. Now from the appearance we recognize anemia; from her history, amenorrhœa; and by examination we find retroflexion; the diagnosis is established; retroflexion, the cause; the others, the sequel. In the treatment, replace the uterus, build up the strength, and the function of this organ will be speedily restored.

Cystic Tumor.

CASE 3. In this case we have greater difficulties to contend with. This woman is 38 years of age. Sixteen years ago she noticed a tumor about the size of a hen's egg, over the lower part of the abdomen, and in the last ten years it has grown rapidly. Here you see the tumor about 16 inches broad, and the largest part on the right side of the median line, extending up to the umbilicus. It is tender on pressure, and has not interfered with her general health yet. She menstruates regularly, and has no pain, and suffers only from the inconvenience of this mass or tumor. To the sense of touch it is hard, immovable, lobulated and of irregular shape. On percussion I detect fluid here and there. This fluid must be inclosed in cysts, for the borders are solid, and its contents fluctuate under my hand. Is this an ovarian tumor? The duration of its growth is evidence against it. Ovarian tumors generally reach their full development in about three years; they grow rapidly, and all of a different shape and position from this one. It is not ascites, nor is it enlargement of the broad ligament, from its history. It is cystic, and connected with the fundus of the uterus. To the sense of touch the cervix is small, firm, and thrown forward; the upper wall of the vagina is hard and smooth. With the sound I find the uterus is fixed and immovable. The cavity is small and contracted, and the sound does not penetrate far. The history and evidence by percussion, sense of touch by the finger and sound, are strong indications that we have a fibro-cystic tumor of the uterus.

But we have not determined clearly enough to make a positive diagnosis yet. In the hypodermic-syringe we have one of the most valuable means of deciding the contents of a tumor. With this we can draw with safety the contents of any sack or tumor, if fluid, and by analysis or the microscope, ascertain its character. If you can get sufficient fluid to ascertain its specific gravity, and find it below 112°, and without albumen, it is a tumor of the broad ligament. If albumen is present and the specific gravity above 112°, it is ovarian. You can rely upon these tests. Here I have been able to draw up a few drops of thick, creamy fluid, from which I can only determine its microscopical character. Have no hesitation, in cases of doubt, to use the hypodermic syringe. I have punctured the bladder and large arteries often with no bad results. Leav-

ing the question of diagnosis, what plan of treatment can we pursue? If we lay open the abdomen with the intent of removing the tumor, the peril will be very great; two out of every three dying. If we explore by incision to find the base of the tumor, its extent, etc., the hazard will be as great, and such surgical interference is only justified by urgent symptoms. This patient is in good health; suffers only from the inconvenience of this tumor, and has a prospect of living many months or years. My advice is to do nothing in this case beyond careful attention to the habits and surroundings, and perhaps some internal medication.

Endometritis.

CASE 4. This case was sent here by a physician, with the diagnosis of endometritis. She was confined about a year ago, and has never been well since. She has much pain and fever at the menstrual periods, dysmenorrhœa and some discharge. I find by examination a patulous condition of the os, the borders dilated and everted, the uterus retroflexed. This inflammatory action, I think, is confined to the cervix; the uterus does not seem sensitive to the sound, yet on passing the cervix the pain is intense. We may have both conditions. I shall replace the uterus, and use tinct. iodine to the cervix.

Atresia Vaginæ.

CASE 5. Here is a case of unusual interest—atresia of the vagina, or closure by inflammation and adhesion of its walls. Occlusion of the vagina is a congenital closure, and used to signify a condition of the vagina never perfect. Atresia indicates the present condition of the vagina that has previously been perfect. She was confined a year ago; had a tedious labor; instruments were used. She did not get up as usual; suffered from a severe discharge for some time after, attended with pain. When this subsided she noticed that she was "not right" as she expresses it. Her health is good, and the menstrual periods are quite regular. The vagina is closed up to within one inch of the vulva, and with this strong light we have found a small opening on the posterior wall of the vagina, through which a probe can be passed. With the finger in the rectum, and the catheter in front, we can determine that the entire canal is closed up to the cervix.

We shall introduce a grooved sound up this opening in the vagina, and carefully cut away little at a time, keeping it open by tents until we reach the cervix. With care and skill the vagina may be restored to its normal condition.

—A death occurred recently in New Orleans from Chloroform administered by a dentist.

COLLEGE OF PHYSICIANS AND SURGEONS,
NEW YORK.

Friday, October 7th, 1870.

Clinic on Diseases of Women, by Prof. T. G. THOMAS.

GENTLEMEN:—To-day I propose to show to you three cases of malignant disease of the uterus—not accidentally. I have selected them for your consideration, and during the coming term I may not have such another opportunity to exhibit the ravages of this disease.

The two first cases show true carcinoma, in the first and second stages respectively. The third case is one of epithelioma.

Carcinoma Uteri—2d Stage.

Mrs. H., æt. 62; Ireland; widow; has ten children. This patient gave the following history: "Fifteen years ago my courses stopped, but on the first of last March they came on me again. This last time they never stopped flowing, sometimes bloody, and at others only a sticky stuff came away, which stained my chemise. I feel great pain over the lower part of my stomach, and it is so bad at night I have to lift up my bed-cloths to keep them from touching me. When I go to walk it gives me great trouble."

Prof. Thomas said: On making a vaginal examination I discover a roughened condition of the anterior wall of the vagina, giving rise to a sensation resembling that derived by passing the finger over cut cartilage. The posterior wall is not affected. High up in the vagina is a small opening, which, upon first examination, I thought to be the os tincæ, but I now feel confident that it is the *os uteri internum*. The cervix has been entirely removed by the cancer, through its ulcerative action, and when perforation occurs through the peritoneum, as in all probability it will, a peritonitis will be caused, which runs but one course. This first case shows the second or ulcerative stage. I may tell you, gentlemen, that on making a vaginal examination I discovered no fetid smell, and the patient tells me that she has never noticed it.

The prognosis of carcinomatous cases is ever the same—death sooner or later. In respect to treatment, I should say, do not tamper with the uterus in any way whatever, unless it be to give a disinfectant vaginal injection when there is much fetor. I always accustom my patients of this class to eat opium if there is much pain. In this case I should not advise it, inasmuch as the suffering is very moderate.

Carcinoma Uteri—1st Stage.

Adelia Reynolds, æt 39; nine children. The history of the patient is: Fifteen months ago I had my last baby, and for two months my courses never stopped; after that I had a discharge, with blood in it now and then. I have a great bearing down

pain, and my legs swell. Prof. T. said: On making a vaginal examination I find a normal vagina, a uterus very low in the pelvis, and a cervix much enlarged in proportion to the entire organ. Upon the cervix are three large knuckles as hard as iron, and covered with mucous membrane, but no solution of continuity can be detected.

By the next week I hope to have a microscopical section of the growth; yet if no cancer cells could be defined, I would not feel disposed to change my diagnosis, inasmuch as I do not have the greatest confidence in the determining of malignant growths by that instrument. Chronic metritis may give rise to a hardened cervix, but not to a condition like the one before us.

Very rarely you see a case in the first stage, or in other words, before it breaks down; and as it is preceded by a case in a later stage, it is of increased importance to you.

Of treatment I have little to say. Were it benign, it would be useless to operate, as I cannot reach a portion of the womb not involved. As it is malignant, operation is out of the question. Opiates as yet are not needed. Tonics, and everything tending to keep up the general health, are indicated.

Epithelioma—Vegetating.

Ann Kenna; æt. 34; widow; one child seven years ago. The patient's history is by no means extensive. Last July was taken with severe pain in her back, which extended down to her knees. Never had any flooding, but has had a discharge of water to the extent of a pint a day.

An examination shows the cervix to closely resemble a cauliflower. By carrying the finger up to the vaginal insertion I find that the upper part of the cervix is not much involved. There are two forms of epithelioma; *vegetating* and *ulcerative*. The former is what we generally find; the latter is exceedingly rare; indeed, we may not notice a case at the clinic this winter. The *vegetating* grows from its base. I have known it to pass down and out at the vulva, though by no means common. The *ulcerative* corrodes and excavates.

One of the symptoms the patient has given is of much importance in epithelioma, but not in carcinoma; that is *hyrorrhœa*. Any other of the rational symptoms is not of much significance. The prognosis is bad, though not so much as in carcinoma.

I have not decided in this case whether or not I can encircle the growth. Five years ago I operated in nearly every case of this kind, but had such bad results that I am by no means sanguine of operative procedure. I feel that in the majority of cases it is best to let them alone. I have taken up nearly the hour in the consideration of unpromising cases,

yet I think it may be of much advantage to you. The next case is more hopeful; it is one of

Sterility.

Mrs. Köhler; æt. 27; 6 years married. This patient has no uterine disease beyond dysmenorrhœa. Vaginal examination shows slight ante flexion, with very small os. I find that the majority of cases of sterility are very rebellious to treat, though in a certain number the desired result is obtained. In the present case I think the cause of dysmenorrhœa and sterility is the inefficient size of the os. If I am correct, a good result in all probability will follow treatment. If, on the other hand, I have not rightly estimated the cause, the operation will be worse than useless. The case might either be dilated, as with the urethra, or a section of cervix made. If it were in private practice I should do the former, but in *cliniques*, patients, unless they see immediate benefit, pass to other hands, and the cases cannot be followed. Next Friday I intend to slit up the cervix, put in a pledget of lint, and from time to time have a probe passed through the canal.

Clinic on Diseases of Children, by Prof. JACOBI.

Wednesday, October 12th.

Prolapse of Rectum.

Girl, 18 months old. This little patient had a chronic diarrhœa for two or three months, by a protrusion of the rectum. The parts protruded are the mucous membrane and sub-mucous areolar tissue. The cause of the separation of the superficial from the deeper tissue is the congestion and œdema resulting from the chronic inflammatory state. There is, moreover, an atonic condition of the sphincter of the anus. The treatment to be pursued in this class of cases is to brush over the protruded bowel with a solution of nitrate of silver (℞. ℥i), then neutralize by a solution of common salt before returning within the sphincter. If there is hemorrhage, introduce small pieces of ice every quarter of an hour until the bleeding is controlled.

Strychnia or nux vomica, locally, is a valuable

agent to bring the sphincter to a normal condition--3ss of the alcoholic extract of nux vomica with 3ss of lard; may be made into an ointment and the size of a bean of this be used as a suppository three times a day.

The subcutaneous injection of strychnia is most efficient in this class of cases.

A case of incontinence of urine and feces occurred to me in a girl 10 years old. I commenced with the subcutaneous use of 1-30 of a grain; this I continued for some time with no benefit. For one day I gave 1-15 and 1-12 of a grain, but this was followed by a convulsion in the lower extremities, showing that the tonic influence was being manifested. From this out the patient was cured.

Electricity, as the reduced current, may be used when other remedies fail. In the present case the ointment of extract of nux vomica will be used as directed.

Paralysis of Facial Nerve.

Boy, æt. 2 years; last March was taken sick with measles, followed by an abscess in neck; three months after this the mother noticed that when the child laughed or cried the mouth was drawn to the right side. The child on examination still shows paralysis of the face, but is enabled to close both eyes; thus we infer that the lesion is not in the bony canal or within the cranium, else complete paralysis of the nerve would be found.

Inflammatory action has, in this case, attacked the sheath of the nerve. If the new cells which are formed have resulted in connective tissue, but little benefit can result from treatment; but if, on the other hand, the process has not gone this far, we may be of some avail.

The iodide of potassium is an excellent drug here, but it disagrees with the stomach when continued; for this reason I shall order the iodide of sodium, 10 grs., every day. This to be continued for a month. In respect to the use of electricity I shall speak again; suffice it to say, that the direct current is a powerful agent to break up new tissues.

EDITORIAL DEPARTMENT.

PERISCOPE.

Scalped by Indians.

The following case is reported by Dr. R. C. MOORE, in the transactions of the Nebraska State Medical Society for 1870:

William Thompson, an employee of the Union Pacific Railroad Company, was scalped by the

Cheyennes, near Plum Creek Station, Nebraska, on the night of the 6th of August, 1867. He was placed under my care, on the morning of the 8th, about thirty-six hours after the wounds were inflicted.

The scalp was entirely removed from a space measuring nine inches antero-posteriorly, and seven inches laterally. The denuded surface extending from one inch above the left eye brow, backward nearly to the occipital protuberance, and laterally

from one temporal region, over the vertex to the opposite. The pericranium was in places detached, but the greater portion of that membrane was dried, and adherent to the bone. There was also a severe tomahawk wound of the right parietal bone, the fissure extending backward, and downward in the diploe, to the depth of an inch and a half, splintering the external table, but producing no injury to the internal. I also found a slight gunshot wound through the fleshy part of the right arm. The only dressing used during the whole course of treatment was surgeons' lint, saturated with pure olive oil, which excluded the air, and was easily removed for the purpose of cleaning the wound.

Healthy granulations soon appeared on the tissue surrounding the denuded calvaria, but showed no disposition to extend over the bone. In about three weeks the outer table began to exfoliate; at first at the margins, then under the adherent pericranium, the exfoliation extending more rapidly along the course of the nutrient vessels, ramifying through that membrane. As this suppurating and exfoliating process progressed, granulations sprang from the diploe, till the entire surface presented the appearance of a healthy wound. The last portions of the outer table to become detached were the spots from which the pericranium had been removed.

The suppuration was very profuse, but the patient being strong, and enjoying excellent health at the time the wounds were inflicted, did not at any time during the course of treatment present those symptoms of depression which would naturally be expected to follow so extensive an injury, nor were there any symptoms indicating that the inflammation had extended to the brain or its membranes. The only inconvenience or unfavorable complication was a severe neuralgic pain, extending down the right side of the head and face; but after the external table of the skull was cast off the pain ceased, and there was no further disturbance of that character. The case progressed favorably, and in about three months from the time the scalp was removed nearly the entire surface was cicatrized.

Reviews and Book Notices.

BOOK NOTICES.

Practical Anatomy; A Manual of Dissections. By CHRISTOPHER HEATH, F.R.C.S., etc. First American from the second English edition. Edited, with additions, by WILLIAM W. KEEN, M.D., etc. Philadelphia: Henry C. Lea. 1870. 1 vol., 8vo., pp. 572.

The majority of anatomies published are inconveniently large for use in the dissecting room, and it was to supply a reliable guide which might serve literally as a hand-book that Dr. Keen undertook

the editing of Heath's Manual. The original has achieved some popularity in London, where it has been in use about six years.

The additions which the American editor has made decidedly increase the value of the manual for American students. They consist in a rearrangement of the text, so as to bring it into accord with the method pursued in American dissecting rooms, the insertion of a large number of explanatory sentences in various parts, the latest anatomical researches, and an appendix containing directions for the preservation of subjects for dissection, and for preparing anatomical specimens.

An excellent index accompanies the work, and the illustrations, about 250 in number, are usually distinct and well printed.

NOTES ON BOOKS.

We have heard temperance lecturers trace nearly all the evils which afflict humanity to the use of alcohol, but never, until we read a recent essay by Dr. JOHN HORNBY, of N. Y., did we suppose that drunkenness produces *syphilis and gonorrhea*. Such, however, is his firm belief, and he argues for it in a pamphlet sent us, entitled "On Alcoholic Liquors Predisposing the System to the Generation of Syphilis and Gonorrhea." His cases in proof are of this character: a very honorable man, whose only fault is that he gets drunk frequently, presents himself with a chancre. He assures us he has not exposed himself. Dr. H. at once takes him at his word, and assumes that it is liquor, and not lechery and lying, which is to explain the sore. For ourselves, we are not at all converted to his view, and prefer to believe that the disease always arises in the ancient and orthodox manner.

We append a list of recent announcements of publications on matters of medical interest:

Accidents. First Help in. Illus. A. Moore.

Attfield (J.) Chemistry. H. C. Lea.

Beale. Disease Germs, their real Nature. Lindsay & Blakiston.

— Archives of Medicine. Vol. IV. Part I. Lindsay & Blakiston.

— On the Liver. Illus. Lindsay & Blakiston.

Bumstead (F. J.) Treatise on Venereal Disease. Third ed. H. C. Lea.

Calkins (A.) Opium and the Opium Appetite. Lippincott.

Cole. Deformities of the Mouth, Congenital and Acquired; with their Mechanical Treatment. Second ed. Colored plates and engravings. Lindsay & Blakiston.

Flower (W. H.) An Introduction to the Etiology of the mammalia. Macmillan.

MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, OCTOBER 22, 1870.

S. W. BUTLER, M. D., D. G. BRINTON, M. D., Editors.

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THE CAUSE OF SEX.

Confining ourselves to a strictly anatomical examination of this most interesting question, we find ourselves carried back to an early period in fetal life, when the embryo is a neuter, apparently capable of becoming male or female under impulses which are as yet obscure. The epithelium of the Wolffian passage is the point of development of the male urino-genitary apparatus; while the female organs can be traced to another epithelial tract adjacent.

But what are the impulses, in other words, what are the teleological reasons which lead to the development of the one or the other, and thus decide upon the sex of the future child?

Only two theories are possible: either each ovum, before or through impregnation, has the element of sexuality impressed upon it, and thus must develop to specific sex; or, being really neuter up to a certain period of fetal life, the embryo assumes the one or other sex, under the influence of some fortuitous circumstances.

The former theory is that advocated by Prof. THURY, who holds that the sex is determined by the period of impregnation of the ovum; that when this occurs soon after the menstrual change, the embryo is female, when later, male.

The anatomical objection to this theory is, that in the apparently neutral condition of the embryo, before the genital apparatus has been at all developed, the epithelial tracts suited to the growth of either male or female organs are present. But then this apparent neutrality is to a certain extent preserved during life, as the mammary and prostatic glands of the male testify. They may be present out of that tendency to preservation of similarity in structure of which we find examples in the appendix vermiformis, and other rudimentary organs.

The second theory, that temporal and accidental conditions lead to the decision of sex, has lately received a remarkable elucidation by the botanical researches of Mr. THOMAS MEEHAN. This gentleman, at the meeting of the American Association for the advancement of science, last year, read a paper on the laws governing sex in plants, in which the theory was propounded that only the highest grades of vitality produce the female sex. This year he has shown how imperfect nutrition affected the lower vitality in favor of

the male sex. He exhibited specimens of the common sweet chestnut, showing that there were two classes of male blossoms on this tree. One class appeared in the axils of the leaves on the weak branches. These were the numerous white catkins we are all so familiar with on the chestnut tree. They usually fall before the last class opened, and probably had little to do with the fertilization of the female flowers. The female flowers only appeared from very vigorous branches. These bore only two or three female flowers, and then if any matter was to be spared, continued on a weak male spike. If the tree is weakened in any manner this last class of male flowers is not formed, all of this material then being required to form the chestnuts. When weakness is still greater, no female flowers at all are borne, but all male ones. This is the reason why chestnuts are scarce in some years. He exhibited leaves from a large chestnut tree which had always borne heavily, but only male flowers this year. The leaves were of a mottled yellow and green tint, showing that its nutritive powers were out of order.

This we regard as a most significant observation. It is, of course, a large jump, and one not authorized, from vegetables to the highest vertebrates. But the laws of sex are singularly alike throughout organic nature, and as we write, a number of facts occur to us in corroboration of the view that imperfect nutrition leads to male, and perfect nutrition to female offspring. The inferior viability of the male fetus is of itself a singularly striking fact in evidence.

It would seem as if Burns was right when he says that nature

"Tries her 'prentice hand on man,
And then she makes the lasses, O."

Notes and Comments.

Notes on Colleges.

College of Physicians and Surgeons, New York.

--Prof. WILLARD PARKER retires from the chair of surgery in this institution, but holds a clinique every Monday. Prof. MARKOE assumes the whole of the duties pertaining to the department of surgery. Prof. JOHN T. METCALFE has retired from the chair of clinical medicine, but will meet the students every Monday at Bellevue Hospital until the beginning of the year. Prof. Markoe delivered the introductory lecture on Monday, Oct. 3d.

Bellevue Hospital Medical College, New York.—Prof. GEO. T. ELLIOTT, from his recent sickness, will be unable to resume his duties this session. We are happy to be able to state that convalescence has been rapidly established, and it is to be hoped that by another session he will be in as good health as ever.

Prof. FRANK H. HAMILTON delivered the introductory lecture at Bellevue Medical Hospital College on Wednesday evening, October 12th. He briefly reviewed the teaching of medicine for the last 30 years, and satisfactorily proved that in America not only has it advanced in that time, but that now it is superior to the European method, and that to-day physicians are educated more practically than on the continent. Prof. WHITE, of Buffalo, takes the chair of obstetrics in this college, vacated for the session by Prof. GEO. T. ELLIOTT.

University Medical College, New York.—Prof. BUDD delivered the opening lecture of the coming session, on Monday evening, Oct. 3d. No changes take place in any of the departments of this college this session.

The Yellow Fever.

This much dreaded pestilence still lurks about New York city. There have been several cases on Governor's Island, within the last week, and it is said, some in the city itself. No doubt the approach of cold weather will promptly put a stop to its extension. The New Yorkers may thank their efficient health officer, Dr. Carnochan, that they have escaped decimation this summer.

Personal.

Dr. J. F. KENNEDY has resigned the Professorship of Obstetrics in the Iowa State University, and has removed from Tipton, Iowa, to Des Moines in the same State, where he requests correspondents to address him in future.

Sanitary Arrangements in the Prussian Army.

A correspondent of the *New York Nation* says: The several committees for the choice and distribution of provisions, medicines, and refreshments are often ruled by American precedents. Professors VIRCHOW and ESMARCH—two first-class medical authorities—in spite of the most vehement objections of red-tapists, have finally succeeded in introducing into the German field hospitals the American system of barracks, which, with their good air and ventilation, are far superior to the damp, ill-ventilated, malodorous rooms of German hospitals. Professor Esmarch told me that previously, in the war of 1866, he had tried to introduce this barrack system, but that at that time he could not overcome the difficulties which were thrown in his way. The

general objection to the proposed reform was that the German climate was much colder than the American, which is a mistake. On the contrary, here the climate is steadier, and the transitions from cold to hot weather, and *vice versa*, are not so sudden. At last Professor Esmarch has triumphed, and all parties concerned are pleased with the reform. I hope it will extend its influence among all classes of the people. You have no idea of the German fear and even terror of a cool draft, or of a well ventilated room. Even in midsummer the windows are closed, and fresh air is anxiously excluded. The atmosphere in the majority of railroad cars and public rooms is as suffocating as in a sleeping car on the worst American railroad—say Camden and Amboy. All these stupid prejudices will, I trust, die out, in consequence of the lately adopted American reform.

Scarlet Fever.

Some striking statistics of the fatality of scarlet fever are given in the *British Medical Journal*:

During the 21 years, from 1848 to 1868, inclusive, there were registered in England and Wales 415,982 deaths from scarlet fever and its allied disease diphtheria. To bring this number down to the present time, exact data are not yet forthcoming, but it may be estimated that at least 40,000 deaths have occurred throughout England last year. In the six months ending June last, 13,900 deaths were returned as resulting from scarlet fever and diphtheria—a number which we suspect, however, to be under rather than over the mark. Here, then, we have an aggregate in round numbers of 470,000 persons who have fallen victims to one type of zymotic disease in the last 22½ years. But what of those whom the diseases attacked but did not kill outright? On the most moderate assumption it is probable that at least 5,000,000 of persons in England have, during the last 21½ years, suffered more or less severely from attacks of scarlet fever and diphtheria. That a considerable number of these persons ultimately perished by other maladies, either induced by the original attack or supervening on a broken constitution, must undoubtedly be taken for granted.

Death of Fitzhugh Ludlow.

The death of this brilliant young writer, at Geneva, Switzerland, is announced. Though not a medical man by profession, his tastes and writings were largely of a medical character. When but 20 years of age he published "The Hasheesh Eater," in which he describes, with a powerful pen, the peculiar effects of that drug. More recently he wrote a work called "The Opium Habit," which we noticed in these columns at the time of its issue.

Some of his portraits of the opium intoxication are as vivid and far more accurate than those of De Quincey. His death is said to have been hastened by indulgence in these perilous intoxicants.

Philadelphia County Medical Society.

The after discussions at Medical Societies are becoming the most interesting part of the programme. At the last meeting of the Philadelphia County Medical Society Dr. WELSH, recently appointed to the charge of the Municipal Hospital, gave an account of the treatment of patients laboring under relapsing fever. There is no specific treatment, but rather one of symptoms,—febrifuges, tonics, antiperiodics and revulsives, being used at various stages of the affection.

The differences between relapsing fever, on the one hand, and bilious intermittent and remittent upon the other; and also the abscesses found in the parenchymatous gland structures in post-mortem examination of relapsing fever subjects, whereby this disease seemed to ally itself to pyemia, notwithstanding the difference in their respective mortalities, were all dwelt upon.

Correspondence.

DOMESTIC.

Medical Matters in Baltimore.

EDS. MED. AND SURG. REPORTER:

Items of interest to the medical profession have been very scarce in this city during the heated term. The medical societies adjourned until cooler weather, and the individual members thereof availed themselves of the general dullness of business to try a course of country air. In fact, as a friend remarked, there were not enough fashionable doctors in the city to make people sick, and that no business would be done until their return. Whether *post hoc aut propter hoc* I cannot tell, but the doctors are home and the city has been enjoying a splendid season of intermittent fever. All sections seemed to be affected by the miasmatic pest, and rich and poor were treated with strict impartiality. Now, however, on account of the change in the temperature, the disease has nearly disappeared.

The Medical and Chirurgical Faculty held its semi-annual session at Cumberland, the early part of last month. The president, Prof. N. R. Smith, M. D., delivered an address, and a number of important papers were read. The session is generally spoken of as being a very interesting one, and speaks well for the future usefulness of the "Faculty."

The regular meetings of the societies were inaugurated the latter part of last month by the Baltimore Medical Association. The subject for discussion

Oct. 22, 1870.]

News and Miscellany.

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was "Moral Insanity," which was opened by Dr. Baltzell, who considered it as synonymous with monomania. Drs. Williams, Taneyhill, Erich, Uhler, Hartman, Morris, Reynolds, Wayson, and Stirling participated. Drs. Williams and Taneyhill disputed the correctness of the term, and contended that the cases reported under the name of moral insanity should be classed under insanity or depravity, and they also argued against the justice of the proceedings by which this class of persons are turned loose upon the community, the asylum or the penitentiary being the proper place for them.

The Eastern section of our city is excited over the hospital question. One of our public-spirited citizens purchased the building formerly occupied by the Maryland Hospital for the Insane, and transferred it, together with one million dollars, as an endowment to a board of trustees. In his transfer he demands that it shall be used forever as a free hospital for all classes. When it is remembered that this city contains no first-class free hospital, the value of the gift can be better appreciated. It is true that we have four infirmaries and two general hospitals, but the accommodations are limited and costly, and the Bay View Asylum is too far from the city, and there is the usual prejudice against going to the almshouse. One would think that in view of these facts the location of the "John Hopkins Hospital" in an accessible part of the city would be welcomed by all. Unfortunately, it is not so, for some of the immediate residents are using their utmost endeavors to have streets cut through the grounds. If they succeed the location will be materially injured and the hospital may be compelled to seek a new site. Of course, the great aim is to increase the value of the property in that section. For myself, I hope the mercenary attempt will fail, and that the present position will be retained as being in every way suited for the purpose.

The medical colleges opened last week with fair classes and prospects of a large increase. There are no changes in the faculties since last session.

More anon.

W. P.

Baltimore, Oct. 10, 1870.

Letter from Rev. Mr. Dunn.

EDS. MED. & SURG. REPORTER :

My attention has been called to an article in your October number entitled, "A Striking Coincidence." The Journal of the Gynecological Society for August, to which reference is made, I have not seen, nor yet did I see a proof of the sermon there printed, before publication. If I had, due credit would certainly have been given to Dr. BEADLE for the passage quoted, as was done in the delivery of the sermon.

Respectfully yours,

J. B. DUNN.

Boston, Mass., October 12, 1870.

NEWS AND MISCELLANY.

Cause of the Fatigue to the Eyes Caused by Artificial Light.

V. MEUNIER states, in *Cosmos*, that the great difference between sun and artificial light is due to the fact that, of the light emitted from the former, about half the quantity of rays are luminous and caloric at the same time; but, as regards our artificial light, for ordinary oil (colza oil), the amount of non-luminous, yet caloric, rays is 90 per cent.; for white-hot platinum, 98 per cent.; alcohol flame, 99 per cent.; electric light, 80, and gas-light, 90 per cent.; while for petroleum and paraffin oils, the amount is 94 per cent. It is this large quantity of caloric rays in artificial light which causes the fatigue to the eyes; but this inconvenience may, according to the author, be almost entirely obviated by intercepting the thermic rays by glass, or better yet, mica plates. The use of these renders the light soft and agreeable to the eyes.

The M'Boundou, or Icaja, a Poison in Use at Gabon.

MM. RABUTON and PEYRE report in the *Comptes Rendus* that, at Gabon, a French settlement on the west coast of Africa, there is in use a vegetable poison locally known as m'boundou, or icaja. That substance is the root of a plant which is not further specified. The authors have been experimenting with this substance, which, even in very dilute decoctions, is very bitter, and appears to contain one or more alkaloids, since the aqueous decoction is largely precipitated by iodide of potassium, and also by phospho-molybdic acid. The poisonous effects of this substance bear some similarity to the effects of brucia, but the authors state that, under certain conditions, this poison does not hurt men. Some of the lower animals are readily killed by it; a dose of 3 milligrams of the alcoholic extract, placed under the skin of a frog, kills it; and rabbits and dogs are killed by doses of from 15 to 25 centigrams of the same extract introduced into the stomach.

Metals as Fuel.

An Englishman would substitute metals for coal as fuel for ocean steamers, and has patented his method, claiming that by it a larger amount of steam can be obtained from a given quantity of fuel. The theory is as follows: In combustion a large amount of coal is turned into gas, much heat becomes latent and goes to volatilize the solid. When zinc, iron, or manganese is burned, the resulting oxide is a dense solid, and but little heat is wasted, as vapor is not produced. The result of obtaining the cosmical heat latent in the atmos-

phere is that one pound of zinc will vaporize more than quadruple the amount of water that a pound of coal will turn into steam, and the oxide of the metal may subsequently be readily reduced. It is well known how small a proportion of coal compared with iron is used in the furnaces of iron foundries, where the partial combustion of the iron itself increases the heat produced by the combustion of the coal. The invention apparently rests on strict scientific grounds.

Prepared Coffee Leaves in Place of Tea.

Dr. GARDNER (England) has made a curious discovery, viz.: That leaves of the coffee plant may be substituted for those of tea without any considerable loss of the peculiar properties belonging to the latter. Dr. G., in examining at a grocer's shop a great variety of teas, noticed that one chest labelled "Assam Tea," had a very peculiar appearance. On his purchasing some, he found it to be prepared coffee leaves. These were in small fragments, not rolled, being too harsh for that operation, but convenient for measuring with a spoon, and yielding a strong, pleasant infusion, acceptable to many on account of its comparative cheapness. The dietetic question settled, the dishonesty of the transaction remains for punishment to prevent a customer from being imposed on, and buying coffee when he wants tea.

New Use for Hyposulphite of Soda.

It is stated that experiments made with this salt have proved it to be very superior for use for washing linen to the carbonate of soda now in use; it has no corrosive action, and does not cause a yellow coloring of the fabrics after some time. Borax, largely used in the Netherlands and Belgium, is a better substitute still, and by its use white fabrics assume an agreeable bluish hue, which, in many instances, renders the subsequent use of washing-blue unnecessary.

Rapidity of Mental Transmission in a Nerve.

Professor HEIMHOLTZ has made some new measurements on the rapidity at which excitation is propagated along the motor nerves of man from the brain to the muscles. The ascertained rapidity of the excitation varies between 260 and 292 feet per second, and the rapidity is also found to be greater in summer than in winter. This result led us to a more exact observation of the influence of temperature, which is ascertained by the artificial cooling or warming of the arm. By this means the accelerating influence of a higher temperature has been clearly determined, so that the interval of time between an impulse of the voluntary power and the corresponding movement of the muscles is greater in winter than in summer.

Poisonous Indelible Ink.

There is in the market an indelible ink which, when it comes in contact with the skin produces eruptions and inflammations, and is very dangerous to handle. The chief constituent of the ink is a black, half-fluid resin, made from the oriental anacardium nut. The ink is brown, and has an ethereal odor; in this respect it differs from ordinary indelible inks, and may be distinguished from them.

—The only change which has taken place in the medical staff of the U. S. Army since July 1, 1870, is the resignation of Assistant Surgeon E. J. Marsh, to date August 17, 1870.

—Beecher writes: "Tobacco is the one best remedy for all stings of insects. Wet it so that the juice shall start, and place it on the place stung, and in one moment you are all right again."

QUERIES AND REPLIES.

Dr. T. C. McC., III.—We commute with the *Journal of the Gynecological Society* and the *Boston Journal of Chemistry*. Eight dollars will procure those journals and THE REPORTER for a year.

MARRIED.

BROWN—HUNTING.—In Cincinnati, October 5th, at the residence of the bride's parents, by the Rev. M. C. Briggs, D. D., W. T. Brown, M. D., and Miss S. Addie Hunting.

MICHELL—LEACH.—At Tarrytown, N. Y., October 13th, by the Rev. J. P. Michell, D. D., George B. J. Michell, M. D., and Sarah A. Leach, daughter of James L. Leach, Esq., both of New York city.

PRESTON—KEUTZEL.—October 6th, at the residence of the bride's parents, in Ross township, Pa., by the Rev. W. P. Moore, B. W. Preston, M. D., and Lizzie Keutzel.

RIVES—THOMPSON.—October 4th, at Hillsboro, Ohio, by the Rev. Joseph McD. Trimble, D. D., Dr. Edward Rives, of Cincinnati, and Miss Maria D. Thompson, daughter of James H. Thompson, Esq.

RYLAND—MORTON.—September 29th, by the Rev. Joseph Rowley, at the residence of the bride's father, near Racine, Wis., the Rev. W. S. Ryland, of Grenada, Miss., and Miss Mary E. Morton, daughter of Dr. Wm. J. Morton.

WEBB—SCOTT.—In Covington, Ky., September 27th, by the Rev. Dr. John Worrall, Dr. B. F. Webb, of Warren, Ind., and Miss Sallie J. Scott, daughter of the late Capt. Joseph Scott, of Covington, Ky.

YOUNG—MCMURRAY.—October 11th, in this city, by the Rev. Samuel Young, assisted by Rev. D. Steele, D. D., and Rev. H. Gailey, Mr. Ephraim Young, and Sarah Jane, eldest daughter of Dr. A. S. McMurray, of this city.

DIED.

BAKER.—At Suffern, N. Y., October 4th, M. Louise, beloved wife of Dr. F. J. Baker, in the 23th year of her age.

COCHRAN.—October 9th, at St. Louis, Dr. H. Cochran, son of John T. Cochran, Esq., deceased, in the 23d year of his age.

COOPER.—In Brooklyn, October 9th, Dr. G. A. Cooper, in the 48th year of his age.

CROOKS.—In Pittsburg, October 11th, Dr. James P. Crooks, in the 21st year of his age.

MORRISON.—In this city, suddenly, of paralysis, Oct. 5th, Anna Sophia, wife of Dr. H. Morrison, aged 63 years.